

VEHICLES AND EQUIPMENT BIOSECURITY TIP SHEET



Animal diseases can be spread by dirty or shared vehicles, equipment, and machinery. Have a plan to limit where these items travel on your farm. Make sure to clean them prior to use around your animals.

STEP 1: MOVEMENT RISKS AND BIOSECURITY

Items moving on and off your farm/ranch can bring disease. Identifying movement risks can help you prevent them. Check the box that best describes how often each movement occurs. Are most of your checkmarks in the two left columns (lower risk)? Great! Fewer movements help keep disease away from your animals. Do you have items marked in the three right columns (higher risk)? Those need your attention first. Pick one or two to start. Find Biosecurity 75 Sheets (available at: cfsph.iastate.edu/biosecurity) to learn about changes you can make. Continue working on biosecurity with Step 2: Biosecurity checklist and Step 3: Biosecurity Plan template to write your biosecurity plan. These resources can help you protect your animals' health!

INPUTS/OUTPUTS	MOVEMENT	INCREASING LEVEL OF RISK → → → → →				
		NEVER	YEARLY	MONTHLY	WEEKLY	DAILY
Animals and Animal Products	Incoming animals/birds	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Outgoing animals/birds	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Semen/embryos	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Milk, colostrum, eggs (whole shell, liquid, hatching)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Dead animal removal	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Deliveries	Manure, litter, or compost removal	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Feed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Bedding	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Fuel, propane, CO2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Livestock/poultry trucks, trailers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Personnel	Mail, package/delivery services, etc.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	People with animal contact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	People without animal contact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Trash, recycling	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Wildlife, rodents, birds, neighbor dogs or cats	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Other	Groundskeeping	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Traffic related to residence, home	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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MOVEMENT RISKS AND BIOSECURITY

Raising animals requires moving things on and off your property. Biosecurity steps help protect your livestock when moving animals, people, vehicles, and other items. Start by reviewing what comes on and off your property. Use the Step 1: Movement Risks and Biosecurity checklist (as pictured at left) at: cfsph.iastate.edu/biosecurity.

Consider **how often** the movement occurs. For example, movements that happen weekly pose a greater risk than movements that happen yearly. Changing some deliveries to occur less often is one way to reduce risk.

Consider **what type** of movement occurs. Moving animals on to or off of your property poses a greater risk than mail or package delivery to the house. Making sure the livestock truck or trailer was cleaned and disinfected before loading your animals is one way to lower risk.

Consider **where else** vehicles or equipment have been before coming on to your property. Vehicles that have been to other animal operations and then come to your property can bring disease. Limit where they go on your farm to reduce risk. Some examples include:

- Animal delivery trucks or trailers
- Milk trucks or egg transport vehicles
- Dead animal or manure removal trucks
- Feed, bedding, fuel, or propane delivery trucks
- Mail or package delivery, drug and supply delivery, school buses
- Vehicles that belong to workers, family, friends, or other visitors
- Trash or recycling pick up
- Groundskeeping items such as skid loaders, mowers, tractors, etc.

LIMIT ACCESS TO ANIMAL AREAS

To protect your livestock, limit access of vehicles and equipment coming from off-site.

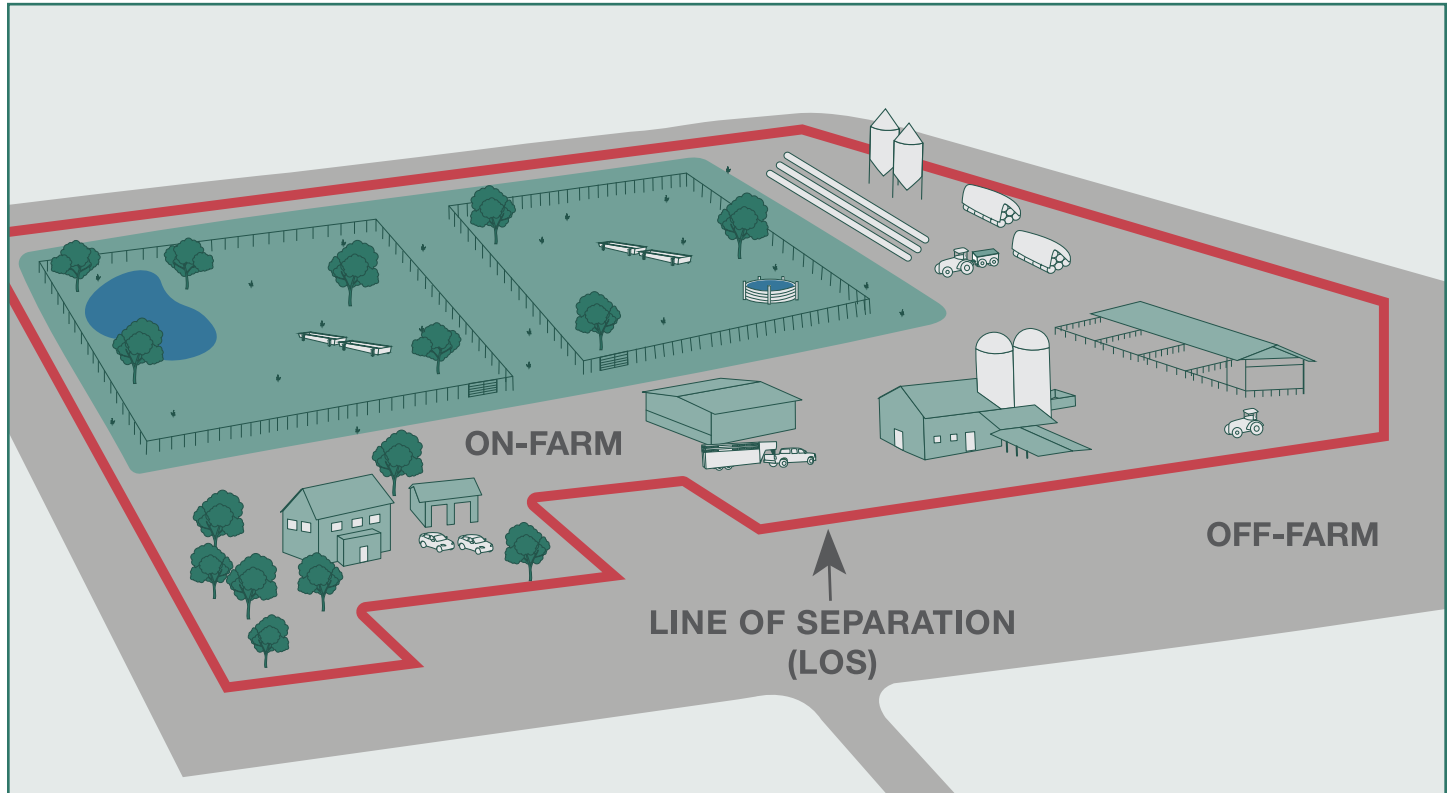
- Clearly mark points of entry to the operation with signs.
- Plan drive paths so that off-farm vehicles or equipment do not drive into animal areas.
- Only allow clean vehicles and equipment to enter your operation.
 - During an animal disease outbreak, vehicles and equipment used in animal areas should also be disinfected before entry.
- Set up a Line of Separation (LOS) for your animal areas.



Washing a trailer. Source: Danelle Bickett-Weddle, Iowa State University

LINE OF SEPARATION (LOS)

- The LOS divides off-farm movements from animal areas. The LOS might include the entire operation, just the animal housing areas, or be something in between.
- The on-farm area (inside the LOS) should include animals and their areas, feed, feeders and waterers. It should also include equipment used for daily tasks. All equipment within the LOS should remain inside the LOS.
- Learn more about setting up an LOS. Read the Biosecurity Tip Sheet: Protecting Your Herd/Flock available at: cfsph.iastate.edu/biosecurity.



VEHICLES

- Provide a parking area for personnel and visitors. The parking area should be located outside the LOS and away from animal areas.
- Limit entry of vehicles used for the removal of dead animals, manure, litter, and compost. These vehicles likely visit other farms and could carry disease. Storage and pick up of these waste materials should happen away from animal areas. These materials should be easy to access, without crossing the LOS. Manure or litter spreaders and other items kept on farm should be stored away from animal areas.
- Limit the sharing of animal transport vehicles (e.g., trailers). If shared, clean and disinfect them between uses.
- Dirty vehicle tires and wheel wells should be cleaned before crossing the LOS.



Truck used for dead animal removal.
Source: Pam Zaabel, Iowa State University

EQUIPMENT AND MACHINERY

- Farm-dedicated equipment and machinery is ideal. Limit the entry of items that are shared with other sites. Any shared items should be cleaned and disinfected before crossing the LOS.
- Heavy machinery such as tractors or skid loaders used in animal areas get dirty. When moved, they can spread germs on farm and to other farms. Clean and disinfect before moving to other animal areas.



Clean and disinfect heavy machinery.
Source: Steve Goff, USDA

ASSESSMENT CHECKLIST

Use the following checklist to determine areas where you are doing well and others that need to improve.

YES	NO	After answering, pick one or two “No” answers and make an improvement plan with the resources below.
		Can you limit entry of people and vehicles to your farm/ranch?
		Are signs posted at the entry points with biosecurity information?
		Do you have a parking area for vehicles that is away from animal areas?
		Can you limit entry of shared vehicles, machinery and equipment if they are dirty?
		If equipment is shared with other animal operations, is it cleaned and disinfected before entering your property?

MORE RESOURCES:

[Biosecurity Tip Sheet: Cleaning and Disinfection](#). Center for Food Security and Public Health.

[Setting up a Vehicle Cleaning and Disinfection Station video](#). Iowa Department of Agriculture and Land Stewardship

[Traffic Control](#). Healthy Farms Healthy Agriculture.

ACKNOWLEDGMENTS

Development of this material was made possible through grants provided to the Center for Food Security and Public Health at Iowa State University, College of Veterinary Medicine from the U.S. Department of Agriculture (USDA) Animal and Plant Health Inspection Service through the National Animal Disease Preparedness and Response Program (NADPRP) and National Institute of Food and Agriculture, under award number AWD-021794-00001 through the North Central Region SARE program under project number ENC19-176. USDA is an equal opportunity employer and service provider. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the USDA. Iowa State University is an equal opportunity provider. For the full non-discrimination statement or accommodation inquiries, go to extension.iastate.edu/diversity/ext.